

REMARKS

Claims 1-29 are currently pending in the subject application, and are presently under consideration. Claims 1-29 are rejected. Favorable reconsideration of the application is requested in view of the comments herein.

I. Rejection of Claims 1-29 Under 35 U.S.C. §112, First Paragraph

Claims 1-29 stand rejected under 35 U.S.C. §112, first paragraph as failing to comply with the enablement requirement. Withdrawal of this rejection is respectfully requested for at least the following reasons.

The Office Action alleges that the nature of “a cross cancellation component” recited in claims 1, 18, 21, 25, and 28 is not explained in the specification so as to enable one skilled in the art to make and use the “cross cancellation component.” Applicant’s representative respectfully disagrees. The specification repeatedly refers to the functions performed by the digital cross-cancellation component (DCC) and also refers to several specific digital devices that may be used by one of skill in the art to implement these functions.

For example, pages 7-8, paragraph 00028 states the following: “The amplification system includes a digital cross cancellation component [DCC] that receives an input signal and generates a modified input signal and a separate digital copy of the wanted signal from which to produce a reference signal.” The reference signal is merely a separate copy of the wanted signal used to correct the final output signal. Furthermore, pages 17-18, paragraphs 0055-0056 recite the following: “In modifying the input signal, the DCC “can remove peaks associated with the composite input signal and/or the amplitude modulated component of the composite signal, for example, by clipping and/or adding anti-peak signals to the signals. Additionally, the [DCC] can perform pre-distortion of the composite input signal and/or the phase and amplitude modulated components of the composite input signal. Alternatively, pre-distortion can be performed prior to peak removal or other distortion mitigating techniques.” Therefore, the DCC component can perform functions such as modifying the input signal by performing pre-distortion, clipping and/or adding anti-peak signals to the input signal. In addition, the DCC can generate a separate

digital copy of the wanted signal (i.e., prior to any modifications) from which to produce a reference signal.

Several digital devices commonly used to implement these functions of the DCC, namely production of a modified input signal and a clean reference signal, are also disclosed in the specification. For example, page 10 paragraph 0033 recites that “The digital cross-cancellation component 11 can be a digital component, such as an application specific integrated circuit (ASIC), field programmable gate array (FPGA), a digital signal processor (DSP) or a combination of digital hardware and/or software components.”

Applicant further submits that the functions employed by the DCC are performed in the digital domain. Therefore, functions such as modifying a digital input signal, generating a digital reference signal that is a digital copy of the wanted signal, generating a digital reference signal that corresponds to an inverted version of a desired output signal, and separating a sample of the output signal into a plurality of subband output signals, for a digital signal would be performed on digital components, such as the aforementioned ASIC, FPGA, or DSP. Therefore, applicant submits that the specification sufficiently supports the language in claims 1, 18, 21, 25, and 28 that recites “a cross cancellation component” and sufficiently meets the enablement requirement under 35 USC §112.

For the reasons described above, withdrawal of the rejection of claims 1-29 is respectfully requested.

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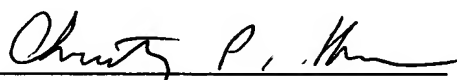
CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

Date 10/31/05


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